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EXAMINER

BAYARD, DJENANE M

ART UNIT	PAPER NUMBER
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2141

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/727,915

Applicant(s)

ANDERSON ET AL.

Examiner

Djenane M Bayard

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-15, 17-21, 24-27 and 30-38 is/are rejected.
- 7) ☒ Claim(s) 10, 11, 16, 22-23, 28-29 and 39-40 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)     | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see page 12, filed September 30, 2004, with respect to the rejection(s) of claim(s) 1-40 under 35 U.S.C. § 103 (a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of a different interpretation of the reference and newly found new prior art.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 6, 8-9, 12-15, 24-27, 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,182,129 to Rowe et al in view of U.S. Patent No. 6,338,089 to Quinlan.

a. As per claims 1 and 13, Rowe et al teaches a network communicatively linking a host computer, a server computer, and a plurality of client computers, a communication connection initiator configured to create the communication connections between the server computer and the host computer (See col. 8, lines 38-45). However, Rowe et al fails to teach a communication connection pool configured to maintain in addition to communication connections through the network between the host computer and the server computer being used by client computers to

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access the host computer through the server computer, communication connections between the host computer and the server computer unused but available for use by the client computers to access the host computer through the server computer; and a communication connection pool manager configured to direct the communication connection initiator to create a first number of communication connections to be added to any unused available communication connections in the communication connection pool when the number of unused available communication connections is below a second number.

Quinlan teaches a process pool methods and apparatus. Furthermore, Quinlan et al teaches a communication connection pool configured to maintain in addition to communication connections through the network between the host computer and the server computer being used by client computers to access the host computer through the server computer, communication connections between the host computer and the server computer unused but available for use by the client computers to access the host computer through the server computer (See col. 11, lines 1-67); and a communication connection pool manager configured to direct the communication connection initiator to create a first number of communication connections to be added to any unused available communication connections in the communication connection pool when the number of unused available communication connections is below a second number (See col. 18, lines 7-24)

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Quinlan et al in the claimed invention of Rowe et al in order to process request generated by a user of a client system for accessing facilities of one or more hosts system through a communication network (See col. 4, lines 12-16).

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b. As per claims 24 and 31, Rowe et al teaches a network communicatively connecting a host computer, a server computer, and a plurality of client computers (See col. 8, lines 38-45). However, Rowe et al fails to teach maintaining a pool of available communication connections between the host computer and the server computer to be available for use by the client computers that request communication connections to access the host computer through the server computer; determining the number of available communication connections in the pool available for future requests; determining if the number of available communication connections in the pool available for future requests is at least at a desired amount of available communication greater than zero; and increasing the number of available communication connections in the pool available for future requests if the number of available communication connections in the pool available for future requests is at or below the desired amount.

Quinlan teaches a process pool methods and apparatus. Furthermore, Quinlan et al teaches a communication connection pool configured to maintain in addition to communication connections through the network between the host computer and the server computer being used by client computers to access the host computer through the server computer, communication connections between the host computer and the server computer unused but available for use by the client computers to access the host computer through the server computer (See col. 11, lines 1-67); and a communication connection pool manager configured to direct the communication connection initiator to create a first number of communication connections to be added to any unused available communication connections in the communication connection pool when the

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number of unused available communication connections is below a second number (See col. 18, lines 7-24)

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Quinlan et al in the claimed invention of Rowe et al in order to process request generated by a user of a client system for accessing facilities of one or more hosts system through a communication network (See col. 4, lines 12-16).

c. As per claim 2, Rowe et al in view of Quinlan et al teaches the claimed invention as described above. Furthermore, Rowe teaches wherein the communication connections are based upon one or more protocols consisting of TCP/IP, TN3270, TN3270E, TN5250, and Telnet (See col. 6, line 47).

d. As per claim 3, Rowe et al in view of Quinlan et al teaches the claimed invention as described above. Furthermore, Rowe et al teaches wherein the client computers are configured to request access to the host computer to obtain business data and the host computer is configured to retrieve business data based upon requests from the client computers (See col. 1, lines 50-67 and col. 2, lines 1-7)

e. As per claim 8, Rowe et al in view of Quinlan et al teaches the claimed invention as described above. Furthermore, Rowe et al teaches wherein the communication initiator, the communication connection pool and the communication pool manager is configured to run on the server computer (See col. 7, lines 1-17 and figure 3).

f. As per claims 9 and 15, Rowe et al in view of Quinlan et al teaches the claimed invention as described above. However, Rowe et al fails to teach wherein the first number is an increment.

Quinlan et al teaches wherein the first number is an increment (See col. 18, lines 25-30).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein the first number is an increment as taught by Quinlan et al in the claimed invention of Rowe et al in order for the specific coding of the value to enable the component determine if the browser component requested a new connection or a pre-established session connection (See col. 18, lines 49-55).

g. As per claim 12, Rowe et al in view of Quinlan et al teaches the claimed invention as described above. However, Rowe et al fails to teach wherein the communication connection pool manager is further configured to direct the communication connection initiator to terminate a portion of the unused available communication connections when the number of unused available communication connections in the communication connection pool exceeds a third number.

Quinlan teaches wherein the communication connection pool manager is further configured to direct the communication connection initiator to terminate a portion of the unused available communication connections when the number of unused available communication connections in the communication connection pool exceeds a third number (See col. 11, lines 1-67).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein the communication connection pool manager is further configured to direct the communication connection initiator to terminate a portion of the unused available communication connections when the number of unused available communication connections in the communication connection pool exceeds a third number as taught by Quinlan in the claimed invention of Rowe et al in order for the specific coding of the value to enable the component determine if the browser component requested a new connection or a pre-established session connection (See col. 18, lines 49-55).

h. As per claim 25, Rowe et al in view of Quinlan et al teaches the claimed invention as described above. However, Rowe et al fails to teach wherein the desired amount is a first number and the number of available communication connections are increased by using a second number as the amount of increase.

Quinlan et al teaches wherein the desired amount is a first number and the number of available communication connections are increased by using a second number as the amount of increase (See col. 11, lines 1-67).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Quinlan et al in the claimed invention of Rowe et al in order to process request generated by a user of a client system for accessing facilities of one or more hosts system through a communication network (See col. 4, lines 12-16).



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i. As per claim 30, Rowe et al in view of Quinlan et al teaches the claimed invention as described above. However, Rowe et al fails to teach decreasing the number of available communication connections in the pool available for future requests if the number of available communication connections in the pool available for future requests is at or above a predetermined amount.

Quinlan et al teaches decreasing the number of available communication connections in the pool available for future requests if the number of available communication connections in the pool available for future requests is at or above a predetermined amount (See col. 11, lines 1-67).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Quinlan et al in the claimed invention of Rowe et al in order to process request generated by a user of a client system for accessing facilities of one or more hosts system through a communication network (See col. 4, lines 12-16).

j. As per claims 6, 14, and 26, Rowe et al in view of Quinlan et al teaches the claimed invention as described above. However, Rowe et al fails to teach wherein the communication connector pool manager is configured to apply operations research and queuing theory with historical traffic, data of requests from the client computers for access to the host computer to determine at least one of the first number and the second number.

Quinlan et al teaches wherein the communication connector pool manager is configured to apply operations research and queuing theory with historical traffic, data of requests from the

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client computers for access to the host computer to determine at least one of the first number and the second number (See col. 11, lines 1-67).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Quinlan et al in the claimed invention of Rowe et al in order to process request generated by a user of a client system for accessing facilities of one or more hosts system through a communication network (See col. 4, lines 12-16).

k. As per claims 27, 32 and 34, Rowe et al in view of Quinlan et al teaches the claimed invention as described above. However, Rowe et al fails to teach wherein the number of available communication connections are increased using an increment for the second number.

Quinlan et al teaches wherein the number of available communication connections are increased using an increment for the second number. (See Col. 11, lines 1-67).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Quinlan et al in the claimed invention of Rowe et al in order to process request generated by a user of a client system for accessing facilities of one or more hosts system through a communication network (See col. 4, lines 12-16).

l. As per claim 33, Rowe et al in view of Quinlan et al teaches the claimed invention as described above. However, Rowe et al fails to teach wherein the communication connector pool manager is configured to apply operations research and queuing theory with historical traffic, data of requests from the client computers for access to the host computer to determine at least one of the first number and the second number.

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Quinlan et al teaches wherein the communication connector pool manager is configured to apply operations research and queuing theory with historical traffic, data of requests from the client computers for access to the host computer to determine at least one of the first number and the second number (See col. 12, lines 25-65).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Quinlan et al in the claimed invention of Rowe et al in order to process request generated by a user of a client system for accessing facilities of one or more hosts system through a communication network (See col. 4, lines 12-16).

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,182,129 to Rowe et al in view of U.S. Patent No. 6,338,089 to Quinlan et al as applied to claim 1 above, and further in view of U.S. Patent Application No. 2002/0038416 to Fotland et al.

a. As per claim 7, Rowe et al in view of Quinlan et al teaches the claimed invention as described above. However, Rowe et al in view of Quinlan et al fails to teach wherein the communication connection pool manager is configured to run as a low-priority thread.

Fotland et al teaches a system and method for writing and reading a thread state in a multithreaded central processing. Furthermore, Fotland et al teaches wherein a process is configured to run as a low-priority thread (See page 5, paragraph [0064]).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein the communication connection pool manager is configured to run as a low-priority thread as taught by Fotland et al in the claimed invention of Rowe et al in

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view of Quinlan et al in order to give way to higher priority thread (See page 5, paragraph [0064])

5. Claims 4-5, 17-21, 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,182,129 to Rowe et al in view of U.S. Patent U.S. Patent No. 6,338,089 to Quinlan et al as applied to claim 1 above, and further in view of U.S. Patent No. 6, 014,702 to King et al.

a. As per claim 4, Rowe et al in view of Quinlan et al teaches the claimed invention as described above. However, Rowe et al in view of Quinlan et al fails to teach wherein the communication connection initiator is a Java based ScreenFactory class.

King et al teaches wherein the communication connection initiator is a Java based class (See col. 4, lines 21-24).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein the communication connection initiator is a Java based ScreenFactory class as taught by King et al in the claimed invention of Rowe et al in view of Quinlan et al in order to establish a host connection automatically and creates a presentation space which holds the information for the applet to interact with (See col. 5, lines 18-21)

b. As per claim 5, Rowe et al in view of Quinlan et al teaches the claimed invention as described above. However, Rowe et al in view of Quinlan et al fails to teach wherein the communication connections are associated with Java based screen objects.

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King et al teaches a host information access via distributed programmed objects.

Furthermore, King et al teaches wherein the communication connections are associated with Java based objects (See col. 6, lines 34-56)

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein the communication connections are associated with Java based screen objects as taught by King et al in the claimed invention of Rowe et al in view of Quinlan et al in order to establish a host connection automatically and creates a presentation space which holds the information for the applet to interact with (See col. 5, lines 18-21)

c. As per claim 17, Rowe et al teaches a network communicatively linking a host computer, a server computer, and a plurality of client computers. However, Rowe et al fails to teach wherein a screen object management system comprising: a screen object pool configured to run on the server computer to contain available screen objects associated with communication connections between the server computer and the host computer to be available for use by the client computers to access the host computer through the server computer; a ScreenFactory class configured to create the screen objects with the associated communication connections between the server computer and the host computer to provide access to the client computers to at least one of data and services of the host computer; and a screen pool manager configured to determine if the number of unused available screen objects is below a first number, and if so, the screen pool manager being configured to direct the ScreenFactory class to create a second number of screen objects to be added to the unused available screen objects in the screen object pool.

Quinlan et al teaches a communication connection pool configured to maintain in addition to communication connections through the network between the host computer and the server computer being used by client computers to access the host computer through the server computer, communication connections between the host computer and the server computer unused but available for use by the client computers to access the host computer through the server computer (See col. 11, lines 1-67); and a communication connection pool manager configured to direct the communication connection initiator to create a first number of communication connections to be added to any unused available communication connections in the communication connection pool when the number of unused available communication connections is below a second number (See col. 18, lines 7-24)

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Quinlan et al in the claimed invention of Rowe et al in order to process request generated by a user of a client system for accessing facilities of one or more hosts system through a communication network (See col. 4, lines 12-16).

King et al teaches wherein the communication connection the pool is a Java based object and the class is a Java based class (See col. 6, lines 34-56 and See col. 4, lines 21-24).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein the communication connection the pool is a Java based object and the class is a Java based class in the claimed invention of Rowe et al in view of Quinlan et al in order to establish a host connection automatically and creates a presentation space which holds the information for the applet to interact with (See col. 5, lines 18-21).

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d. As per claims 35, Rowe et al teaches a network communicatively connecting a host computer, a server computer, and a plurality of client computers (See col. 5, lines 5-12). However, Rowe et al fails to teach maintaining a pool of available communication connections between the host computer and the server computer to be available for use by the client computers that request communication connections to access the host computer through the server computer; determining the number of available communication connections in the pool available for future requests; determining if the number of available communication connections in the pool available for future requests is at least at a desired amount of available communication greater than zero; and increasing the number of available communication connections in the pool available for future requests if the number of available communication connections in the pool available for future requests is at or below the desired amount.

Quinlan et al teaches a communication connection pool configured to maintain in addition to communication connections through the network between the host computer and the server computer being used by client computers to access the host computer through the server computer, communication connections between the host computer and the server computer unused but available for use by the client computers to access the host computer through the server computer (See col. 11, lines 1-67); and a communication connection pool manager configured to direct the communication connection initiator to create a first number of communication connections to be added to any unused available communication connections in the communication connection pool when the number of unused available communication connections is below a second number (See col. 18, lines 7-24)

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It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Quinlan et al in the claimed invention of Rowe et al in order to process request generated by a user of a client system for accessing facilities of one or more hosts system through a communication network (See col. 4, lines 12-16).

King et al teaches wherein the communication connection the pool is a Java based object (See col. 6, lines 34-56)

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein the communication connection the pool is a Java based object in the claimed invention of Rowe et al in view of Quinlan et al in order to establish a host connection automatically and creates a presentation space which holds the information for the applet to interact with (See col. 5, lines 18-21).

e. As per claim 18, Rowe et al in view of Quinlan et al and further in view of King et al teaches the claimed invention as described above. Furthermore, Rowe teaches wherein the communication connections are based upon one or more protocols consisting of TCP/IP, TN3270, TN3270E, TN5250, and Telnet (See col. 6, line 47).

f. As per claim 19, Rowe et al in view of Quinlan et al and further in view of King et al teaches the claimed invention as described above. However, Rowe et al fails to teach The wherein the screen pool manager is configured to determine the first number and second number based in part upon levels of past requests from the client computers for access to the host computer through the server computer.



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Quinlan et al teaches wherein the pool manager is configured to determine the first number and second number based in part upon levels of past requests from the client computers for access to the host computer through the server computer (See col. 11, lines 1-67).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Quinlan et al in the claimed invention of Rowe et al in order to process request generated by a user of a client system for accessing facilities of one or more hosts system through a communication network (See col. 4, lines 12-16).

g. As per claim 20, Rowe et al in view of Quinlan et al and further in view of King et al teaches the claimed invention as described above. However, Rowe et al in view of Quinlan et al fail to teach wherein the screen object pool, screenfactory class, and the screen pool manager are configured to run on the server.

King et al teaches wherein the screen object pool, screenfactory class, and the screen pool manager are configured to run on the server.

I would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein the screen object pool, screenfactory class, and the screen pool manager are configured to run on the server as taught by King et al in the claimed invention of Rowe et al in view of Quinlan et al in order to establish a host connection automatically and creates a presentation space which holds the information for the applet to interact with (See col. 5, lines 18-21).

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h. As per claim 36, Rowe et al in view of Quinlan et al teaches the claimed invention as described above. However, Rowe et al fails to teach wherein the desired amount is a first number and the number of available screen objects are increased by a second number as the amount of the increase.

Quinlan et al teaches wherein the wherein the desired amount is a first number and the number of available screen objects are increased by a second number as the amount of the increase (See col. 11, lines 1-67).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Quinlan et al in the claimed invention of Rowe et al in order to process request generated by a user of a client system for accessing facilities of one or more hosts system trough a communication network (See col. 4, lines 12-16).

I. As per claim 37, Rowe et al in view of Quinlan et al teaches the claimed invention as described above. However, Rowe et al fails to teach determining at least one of the first number and the second number based at least in part upon levels of past requests from the client computers for access to the host computer through the server computer.

Quinlan et al teaches determining at least one of the first number and the second number based at least in part upon levels of past requests from the client computers for access to the host computer through the server computer (See col. 11, lines 1-67).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Quinlan et al in the claimed invention of Rowe et al in

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order to process request generated by a user of a client system for accessing facilities of one or more hosts system through a communication network (See col. 4, lines 12-16).

g. As per claim 21 and 38, Rowe et al in view of Quinlan et al teaches the claimed invention as described above. However, Rowe et al fails to teach wherein the first number is an increment.

Quinlan et al teaches wherein the first number is an increment (See col. 18, lines 25-30).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein the first number is an increment as taught by Quinlan et al in the claimed invention of Rowe et al in order for the specific coding of the value to enable the component determine if the browser component requested a new connection or a pre-established session connection (See col. 18, lines 49-55).

#### ***Allowable Subject Matter***

6. Claims 10-11, 16, 22-23, 28-29 and 39-40 stand as stated in previous office action.

#### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deanne M Bayard whose telephone number is (571) 272-3878.

The examiner can normally be reached on Monday- Friday 5:30 AM- 3:00 PM..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Djenane Bayard

Patent Examiner



**RUPAL DHARIA**  
**SUPERVISORY PATENT EXAMINER**